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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/357,957	07/21/1999	RICHARD LEVY	01064.0011-0	9917

7590

06/02/2005

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/357,957	<b>Applicant(s)</b> LEVY, RICHARD	
	<b>Examiner</b> Cephia D. Toomer	<b>Art Unit</b> 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 29-32, 34-43, 48, 49, 53, 55-68 and 72-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39 and 40 is/are allowed.
- 6) ☐ Claim(s) 29-32, 34-38, 41-43, 48, 49, 53, 55, 56, 58, 60-62, 64 and 66-84 is/are rejected.
- 7) ☒ Claim(s) 57, 59, 63 and 65 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

This Office action is in response to the amendment filed March 8, 2005 in which claims 29-32, 36-38, 41-43, 48, 49, 55-69 were amended and claims 72-84 were added.

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 8, 2005 has been entered.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 29, 30, 31, 68, 72-79, 83 and their dependents are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Claim 29 and its dependents

The specification does not support the language “a lubricating metal and alloy thereof, lubricating metal oxide,” “nitride” or “carbonate”. The specification is very specific about the metal compounds, metals, carbonates and nitrides. Applicant is claiming generic components when the specification only teaches zinc, cadmium, antimony or lead oxide, boron nitride and lead carbonate. With respect to the metal compounds and alloys thereof, Applicant discloses babbit, bronze and brass, which are alloys, and about 15 metals. Nowhere in the specification is it taught that every alloy and every metal is within the scope of specification.

Claims 30 and 83

The specification does not support a solid or particulate inorganic lubricant containing an organic lubricant.

Claim 31

The specification does not support all metal materials that provide barrier-layer lubrication.

Claims 68 and 72-79

The specification does not support a composition that is substantially anhydrous.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 29, 31, 32, 68, 72 and 73 are rejected under 35 U.S.C. 102(b) as being anticipated by Takayama (5,792,717).

Takayama teaches a sliding material comprising a porous ceramic body that has open pores filled with a high water absorbing resin (see abstract). The ceramic body may be boron nitride and the resin may be crosslinked polyacarylates (see col. 4, lines 4-11; col. 5, lines 16-28). The resin absorbs at least 100 times its weight in water (see col. 4, lines 60-67). Takayama teaches that the composition has lubricity properties (see col. 4, lines 30-43).

Accordingly, Takayama teaching all the limitations of the claims anticipates the claims.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 29, 31, 34, 35, 36, 37, 38, 41, 42, 48, 49 and 53 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5,275,760) in view of Obayashi (US 4,340,706).

Johnson teaches a gelled corrosion inhibitor comprising a gelling agent slurried in a first medium and a corrosion inhibitor dissolved in a second liquid medium, wherein the gelling agent forms a gel in the second liquid medium (see abstract; column 3, lines 3-7). The gelling agents are water insoluble hydrogel-forming materials known in the art as super absorbent polymers (see col. 3, lines 21-23, 31-68). The gelling agent is carried as a slurry in an oil such as fatty esters, mineral oils and lubricating oils (first medium). The corrosion inhibitor (lubricant additive) is dissolved in water (see col. 4, lines 39-55). The corrosion inhibitor may be an alkali or alkaline earth metal carbonate (applicant's carbonate) (see col. 4, lines 44-48). Johnson teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Johnson differs from the claims in that he does not specifically teach applicant's intended use. However, intended use is given no patentable weight in claims that are directed to the composition per se.

In the second aspect, Johnson differs from the claims in that he does not specifically teach that the super absorbent polymer absorbs greater than 100 times its weight in water. However, Obayashi teaches this difference. Obayashi teaches that the cross-linked neutralized polyacrylic acid taught by Johnson absorbs at least 400-800 times its weight in water (see abstract; col. 6, lines 42-66).

It would have been obvious to one of ordinary skill in the art to have used the claimed polymers because Johnson teaches the use of super absorbent polymers and Obayashi teaches that these polymers absorb greater than 100 times their weight in water.

In the third aspect, Johnson differs from the claims in that he does not specifically teach that the oils are polymerized olefins. However, no unobviousness is seen in this difference because Johnson teaches that hydrocarbon oils may be used in the invention and this broad teaching encompasses polymerized olefins, which are hydrocarbon oils.

Claims 29, 31, 35, 53, 55, 56, 61, 68 and 72 rejected under 35 U.S.C. 103(a) as being unpatentable over Martineu (US 4,977,192).

Martineu teaches a granular polymer composition having water absorption wherein the composition comprises a water-insoluble but swellable cross-linked polymer material formed of at least one polymer from at least one carboxylic group and at least one powdered mineral charge (lubricating additive) and metal oxide (lubricating metal oxide) dispersed in and bonded to the polymer (see claim 1; col. 4, lines 8-10). The mineral materials include dolomite (a carbonate) and iron oxide (non-noble metal chalcogenide) (see col. 4, lines 8-10). In Table IV, Martineu teaches that the polymers absorb from 100 to over 300% water.

Martineu teaches the limitations of the claims other than applicant's intended use. However, intended use is given no patentable weight in claims that are directed to the composition per se.

***Response to Arguments***

Applicant argues that Johnson does not teach an inorganic lubricant.

Johnson teaches that alkali or alkaline earth metal carbonates may be used in his invention. Applicant is broadly claiming a carbonate. Therefore, Johnson does teach the claimed inorganic lubricant.

Garner has been dropped from the rejection and has been replaced with Obayashi. Obayashi teaches that super absorbent polymers absorb greater than 100 times its weight in water.

Applicant argues that Martineu teaches mica whereas the present invention excludes silicates.

The claims are amended and are still obvious over Martineu. Martineu teaches super absorbent polymers in combination with calcium carbonate (dolomite) and metal oxides. Applicant is claiming these compounds as the inorganic lubricant.

8. Claims 57, 59 and 65 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 57 and 59 are objected to because the prior art fails to teach or suggest the lubricating composition comprising a SAP that absorbs greater than 100 times its weight in water and a chalcogenide of Mo, Sb, Nb or W.

Claim 63 and 65 are objected to because the prior art fails to teach or suggest a mixture of 3 or 4 components in combination with the SAP that absorbs greater than 100 times its weight in water.




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9. Claims 39 and 40 are allowable because the prior art fails to teach or suggest a lubricating composition comprising a SAP that absorbs greater than 100 times its weight in water and a phosphate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Cephia D. Toomer  
Primary Examiner  
Art Unit 1714

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